Call for Chapters for Case Analysis

State of Art Policy and Practice of Emerging Technologies in Enhancing Resilience

Context

The increasing complexity and frequency of disasters, exacerbated by climate change, necessitates the adoption of innovative solutions to enhance disaster risk reduction (DRR) efforts. Emerging and disruptive technologies, including artificial intelligence (AI), satellite-based systems, blockchain, advanced data analytics, and next-generation telecommunications, offer transformative potential in strengthening disaster preparedness, response, and resilience. However, while many technological innovations are being developed and piloted, there is a significant **gap in systematically documenting and sharing best practices** on their application in DRR. Countries and institutions vary widely in their absorptive capacity, access to resources, and regulatory frameworks for integrating these technologies.

This compendium on **State of Art Policy and Practice of Emerging Technologies in Enhancing Resilience** will serve as a valuable knowledge resource for governments, DRR institutions, private sector actors, and development partners.

The compendium aims to:

- **Provide a structured overview** of how emerging technologies are being leveraged for DRR across different regions and sectors.
- **Identify lessons learned** from successful implementations to inform future strategies and investments.
- **Support capacity-building efforts** by offering real-world case studies and practical insights.
- **Enhance policy development** by highlighting challenges, enablers, and recommendations for technology integration in DRR.

This initiative will be complementary to the broader efforts under the UNDRR Global Partnership on Emerging and Disruptive Technologies for Disaster Resilience. The compendium analysis is expected to be linked to a larger program of "Emerging technology readiness assessment" of nations and communities globally.

This initiative will also contribute to strengthening the knowledge base on technology-driven DRR approaches and inform future policy and investment decisions to enhance disaster resilience globally.

Guidelines for Submission

Guidelines for submitting relevant cases are as follows:

- Please check relevant key thematic areas and technology categories in DRR in the template below (multiple choices are possible) for the case you are submitting.
- Template below shows some guiding points for your chapter. Please develop a separate word file for the chapter.
- Attach any relevant picture(s) that can help illustrating your case study (pictures should be in high-resolution, with a brief caption of max. two lines). The picture should be copyright free.
- Submit relevant figure(s)/info graph(s) as visual materials for your case (figures/info graphs should be with a brief caption of max. two lines). The figure/ graph should be copyright free. Any figure which is not your need a written permission from the original author.
- Please provide a list of references for each submission.
- Provide your contact details (including name, title, organisational affiliation and e-mail address), for future correspondence.

The manuscript should have following standards:

- Times New Roman, 12 font size
- Reference style: Basic
- Citation style: Name Year
- Single spacing, A4 size paper

- Maximum length: 10 pages, A4 size, single spacing, including figures and tables
- Word count: 5,000 words

All contributions should be sent by e-mail to Yuki Matsuoka (matsuoka@un.org), Nick Ramos (nicholasjoseph.ramos@un.org), and cc UNDRR Kobe Office (undrr-japan@un.org) by 28th February 2026. If you have any questions or want to discuss an idea for submission, please contact Yuki Matsuoka by e-mail.

Each submission will be peer-reviewed and a plagiarism check will be conducted before final acceptance. The final acceptance will be made on the quality of the submission. The final selected submission will be published as an open access book from a reputed publisher.

Thematic area - Technology matrix

Please select relevant key thematic areas and technology categories in DRR (multiple choices are possible) applicable to your case and mark it with X). One case example can have multiple thematic areas / technologies.										
Key thematic areas	**AI**	**IOT**	**SBS**	**GIS / RS**	**BC**	**DI/DA**	**Tel**	**MR**	**Drone**	**Others (Specify)**
Early Warning and Forecasting										
Risk Identification, Risk Assessment and Risk Modelling										
Damage Assessment										
Inclusiveness										
Education and Capacity Development										
Resilient Infrastructure										
Resilient Recovery										
Governance										
Finance										
Start-ups										
Other, specify:										

AI: Artificial Intelligence, IOT: Internet of Things, SBS: Satellite Based System, GIS /RS: Geographic Information System and Remote Sensing, BC: Block Chain, DI/DA: Data information / Data analytics, Tel: Next generation telecommunication (like 5G, 6G and beyond), MR (Mixed reality, including XR (Extended reality, VR: Virtual reality, AR: Augmented reality).

The submissions are encouraged to address the following issues. However, the authors have the freedom to structure their submissions based on the contents. Please keep in mind a format of a book chapter while submitting your write-up.

Content	Description
Title	Please give the case study a very brief and, if possible, catchy and attractive title.
What?	▪ What type of project/initiative is this? ▪ What were its major goals and objectives? ▪ What kind of issue(s) in DRR are you aiming at solving by the use of this technology? ▪ What is the background behind this project?
When?	▪ When was the project/initiative started? ▪ Is it still ongoing? ▪ If not, when was it completed? (duration of the project/initiative)
Where?	▪ Where was the project/initiative implemented (region, country + village, town, district, province, with geographical location, etc.)?
Who?	▪ Who implemented this project/initiative? ▪ Who was involved (accurate rendering of people, institutions, etc.)? ▪ Who and how many people were targeted or benefitted? ▪ Who implemented, funded, sponsored or supported the project/initiative?
Why?	▪ Why is this good practice? ▪ What kind of new technology(ies) were used? ▪ What are the innovative elements and results? ▪ What have been the key success/failure factors of this initiative?
How?	▪ How was the project/initiative implemented? ▪ What did this practice entail in terms of strategies and methodologies? ▪ How did this project/initiative contribute to DRR? ▪ What has been impacts/contributions from this project to reducing disaster risks, vulnerabilities or exposure?

What are the enablers for its success?	▪ What is critical enabler/s (including regulations and legislations) for making this case successful?
Lessons Learned	▪ What is (are) the key lesson(s) learned from this practice? ▪ What have been the major challenges (including regulations and legislations) of this project/initiative and how were they overcome (if they were)? How to improve similar projects/initiatives in the future?
Potential for Replication	▪ How easy would it be to replicate this practice elsewhere? ▪ How could the practice be replicated in a different context? ▪ What would be the economic, legislative and political constraints for scaling-up?
Any policy recommendations drawn from this case?	Any policy recommendations for technology integration in DRR drawn from this case?
Links to the Sendai Framework	Which Priority(ies) of Sendai Framework is this project relevant or contributing to (multiple selection is possible)?

- ☐ Priority 1 Understanding disaster risk
- ☐ Priority 2 Strengthening disaster risk governance to manage disaster risk
- ☐ Priority 3 Investing in disaster risk reduction for resilience
- ☐ Priority 4 Enhancing disaster preparedness for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction

Please specify how it is relevant and contributing to the selected Priority:

Notes on copyright etc.:

Please note that the Reference Style **BASIC,** Citation Style **Name Year** and Numbering Style **Chapter Content.**

Furthermore, please note that all illustrations will be available in full color in the eBook but may be black and white in the printed book. If color is essential for individual figures in the printed version, please list the corresponding figures in a separate spreadsheet.

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